100

FIGURE 1A

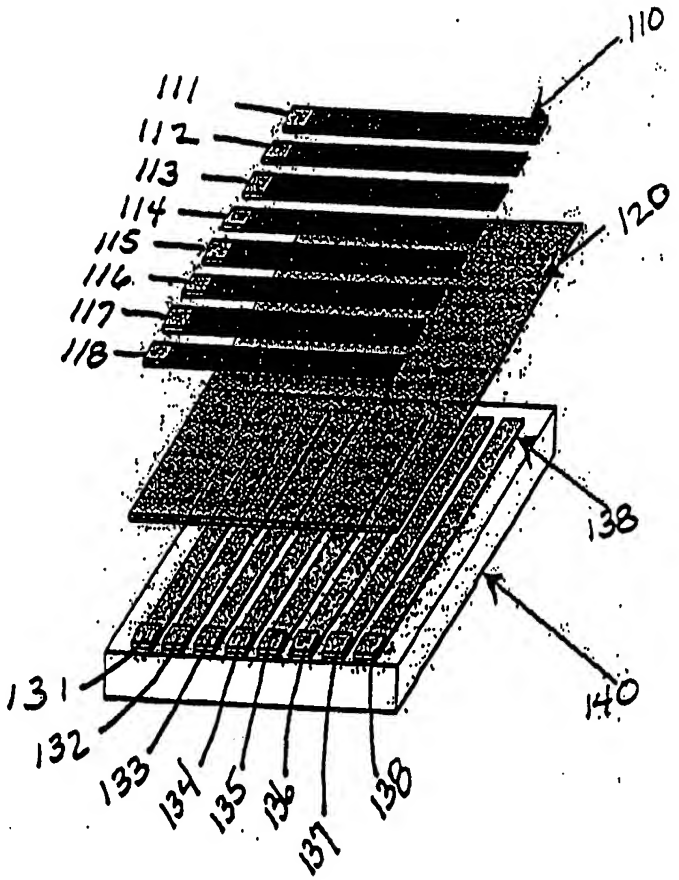
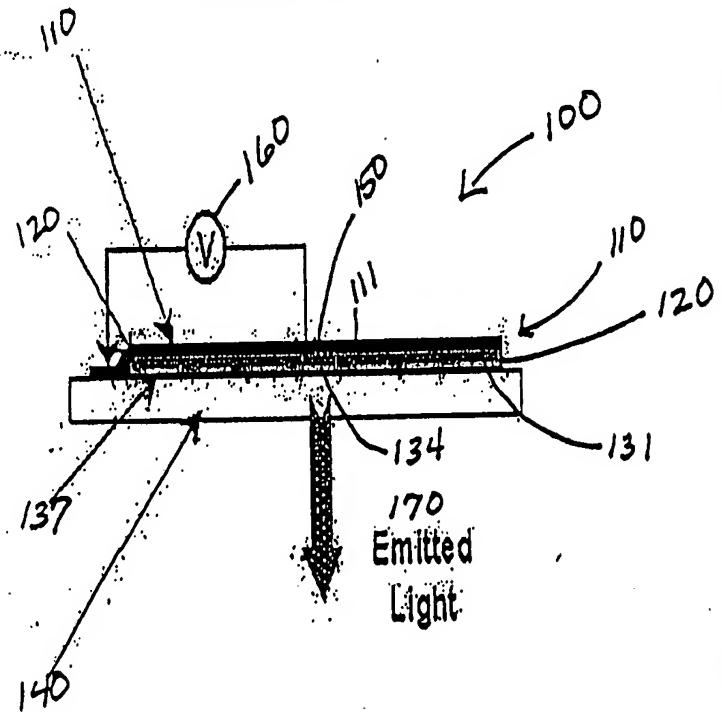
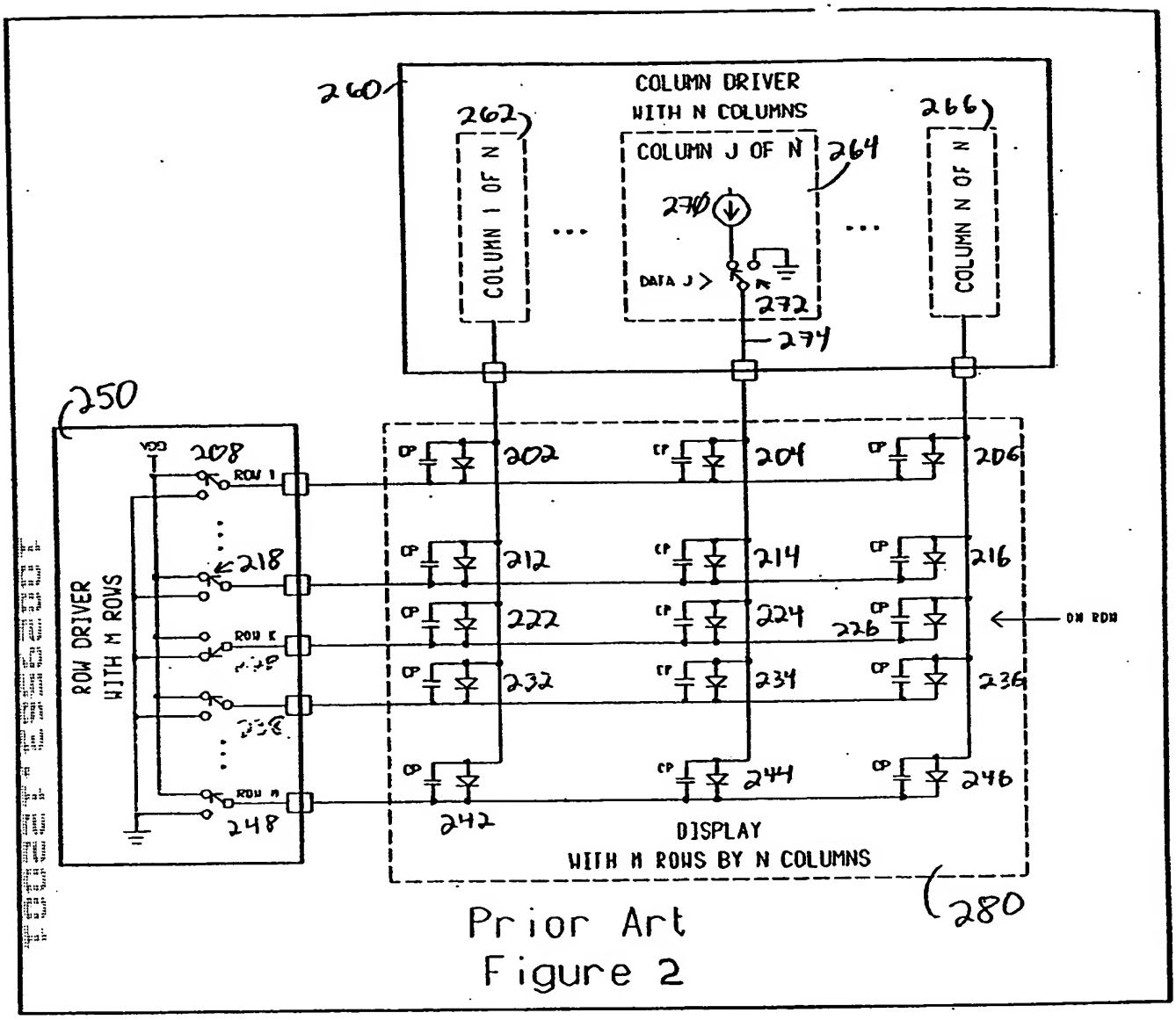


FIGURE 1B





Prior Art
Figure 2

FIG. 3

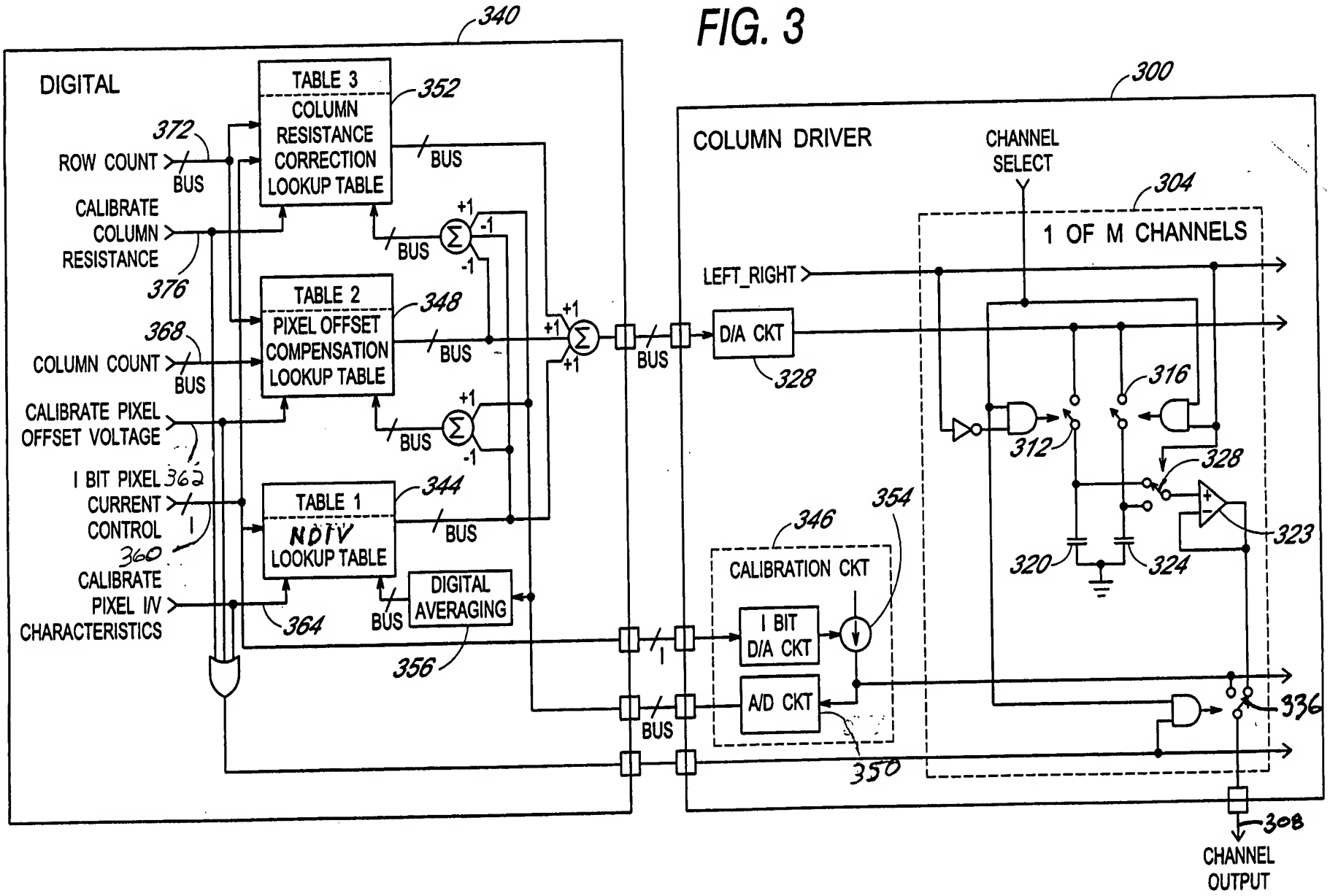
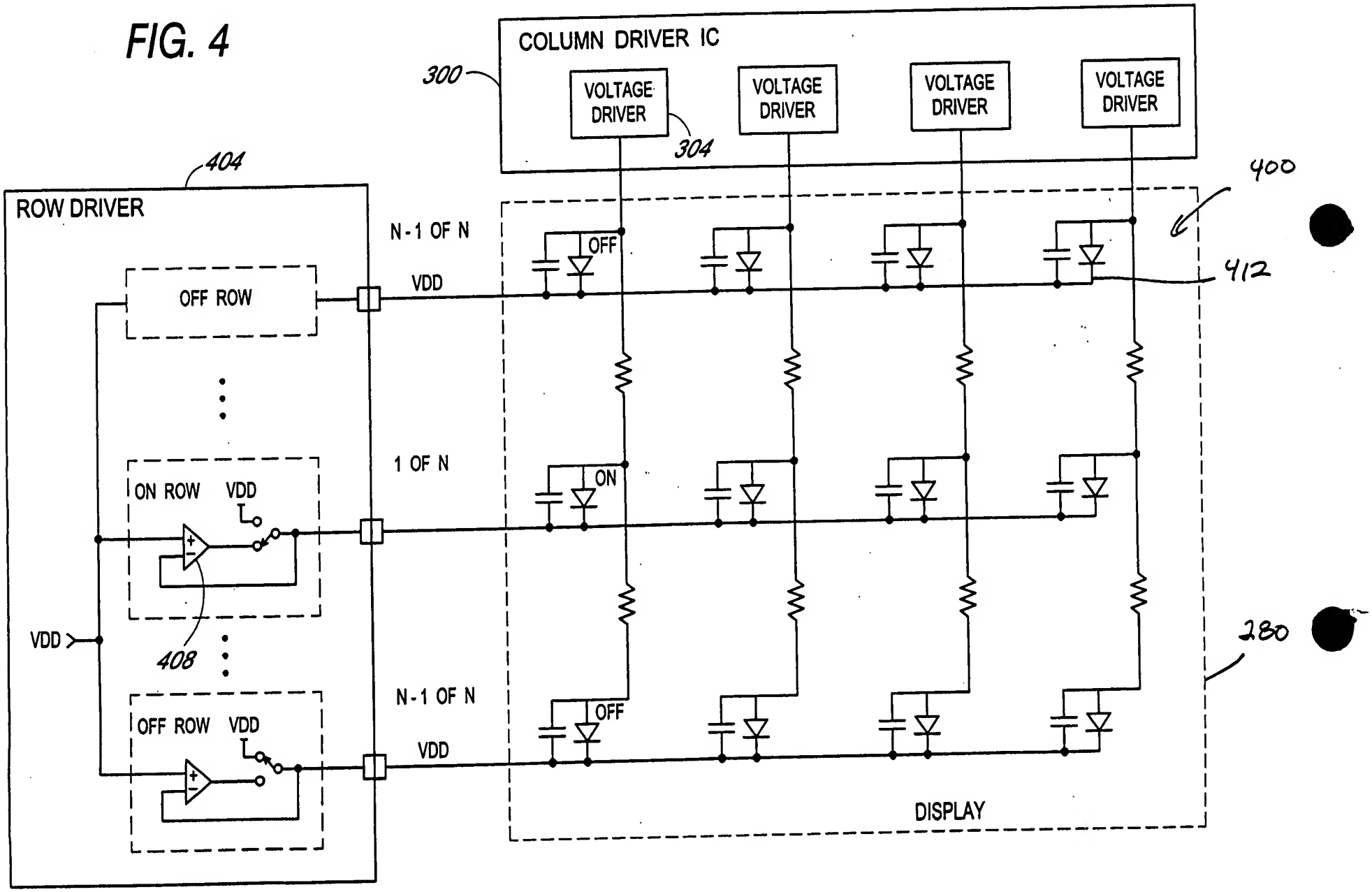

340
DIGITAL
TABLE 3
352
COLUMN RESISTANCE CORRECTION LOOKUP TABLE
372
ROW COUNT
BUS
CALIBRATE COLUMN RESISTANCE
376
TABLE 2
348
PIXEL OFFSET COMPENSATION LOOKUP TABLE
368
COLUMN COUNT
CALIBRATE PIXEL OFFSET VOLTAGE
I BIT PIXEL CURRENT CONTROL
362
360
TABLE 1
344
NDIV LOOKUP TABLE
CALIBRATE PIXEL I/V CHARACTERISTICS
364
DIGITAL AVERAGING
356
+1
-1
300
COLUMN DRIVER
CHANNEL SELECT
304
1 OF M CHANNELS
LEFT_RIGHT
D/A CKT
328
316
312
320
324
323
346
CALIBRATION CKT
354
I BIT D/A CKT
A/D CKT
350
336
308
CHANNEL OUTPUT

FIG. 4


COLUMN DRIVER IC
300
VOLTAGE DRIVER
304
VOLTAGE DRIVER
VOLTAGE DRIVER
VOLTAGE DRIVER
404
ROW DRIVER
400
N-1 OF N
OFF
VDD
412
OFF ROW
1 OF N
ON
ON ROW
VDD
VDD
408
280
N-1 OF N
OFF
OFF ROW
VDD
VDD
DISPLAY

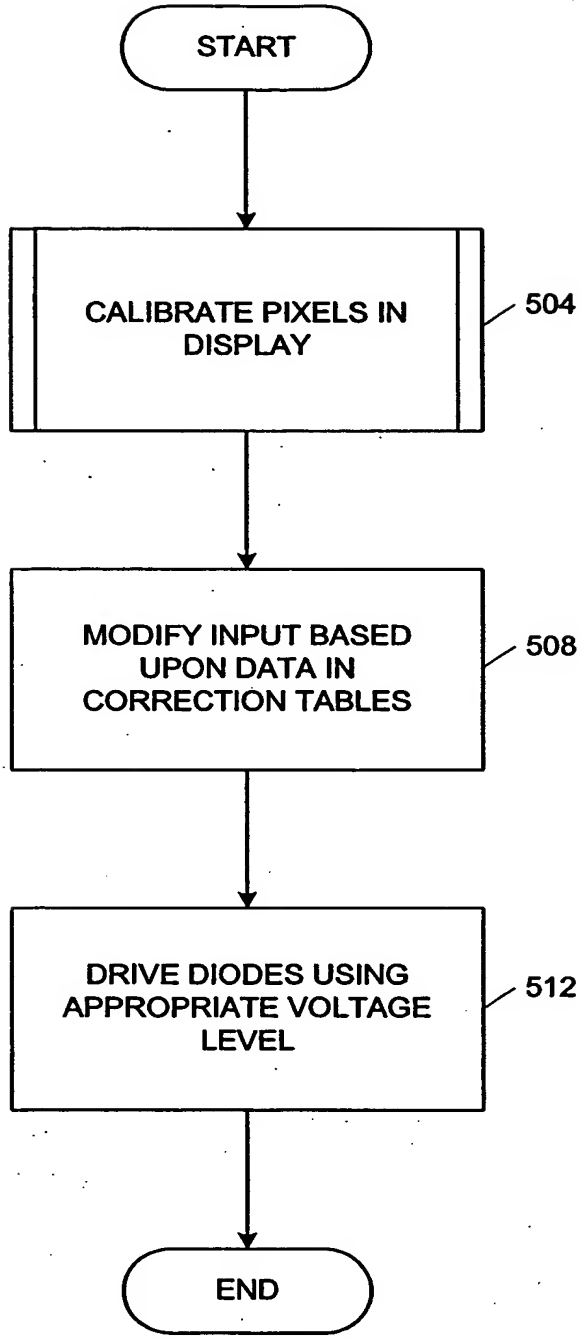

START
CALIBRATE PIXELS IN DISPLAY
504
MODIFY INPUT BASED UPON DATA IN CORRECTION TABLES
508
DRIVE DIODES USING APPROPRIATE VOLTAGE LEVEL
512
END

FIG. 5

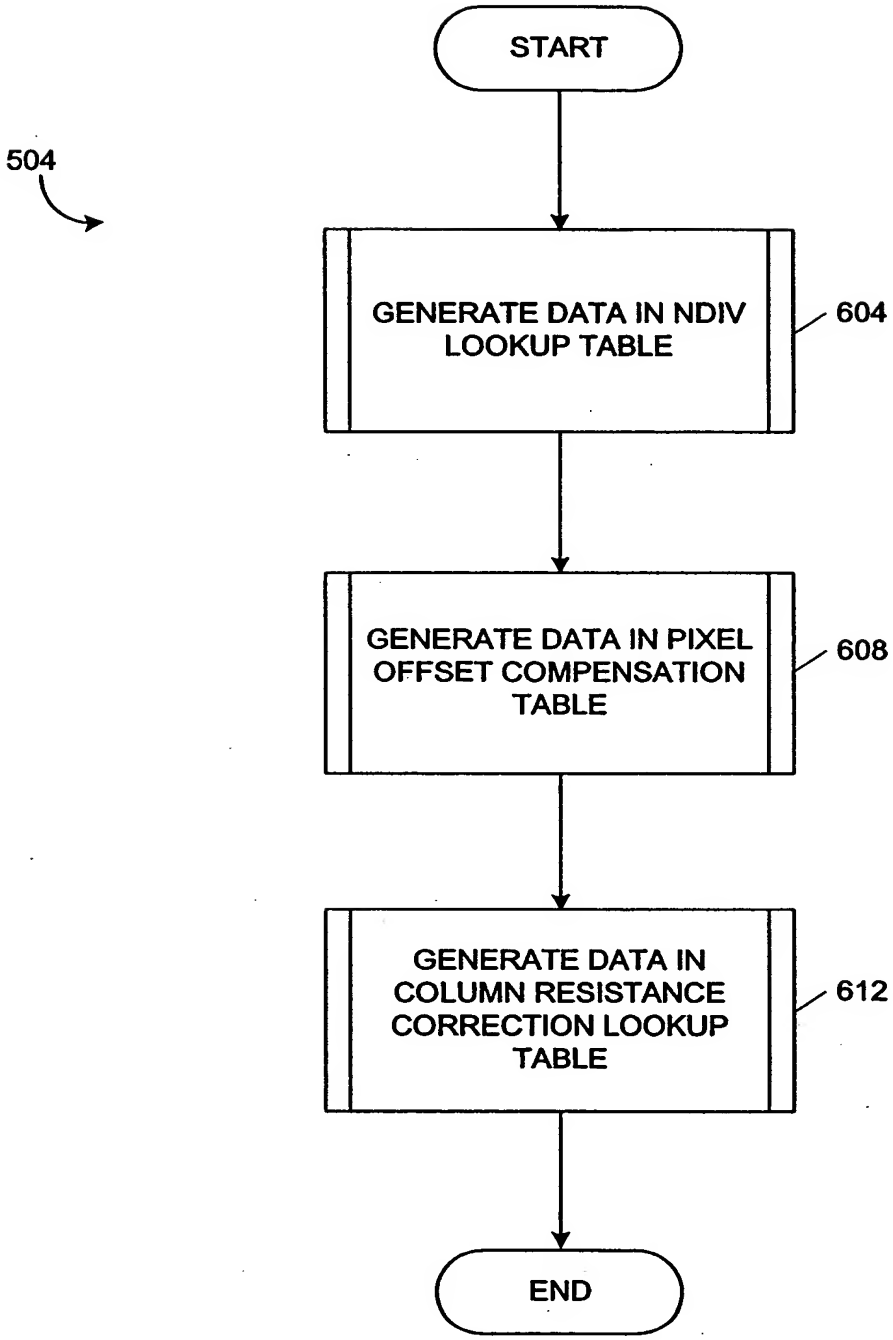

504
START
GENERATE DATA IN NDIV LOOKUP TABLE
604
GENERATE DATA IN PIXEL OFFSET COMPENSATION TABLE
608
GENERATE DATA IN COLUMN RESISTANCE CORRECTION LOOKUP TABLE
612
END

FIG. 6

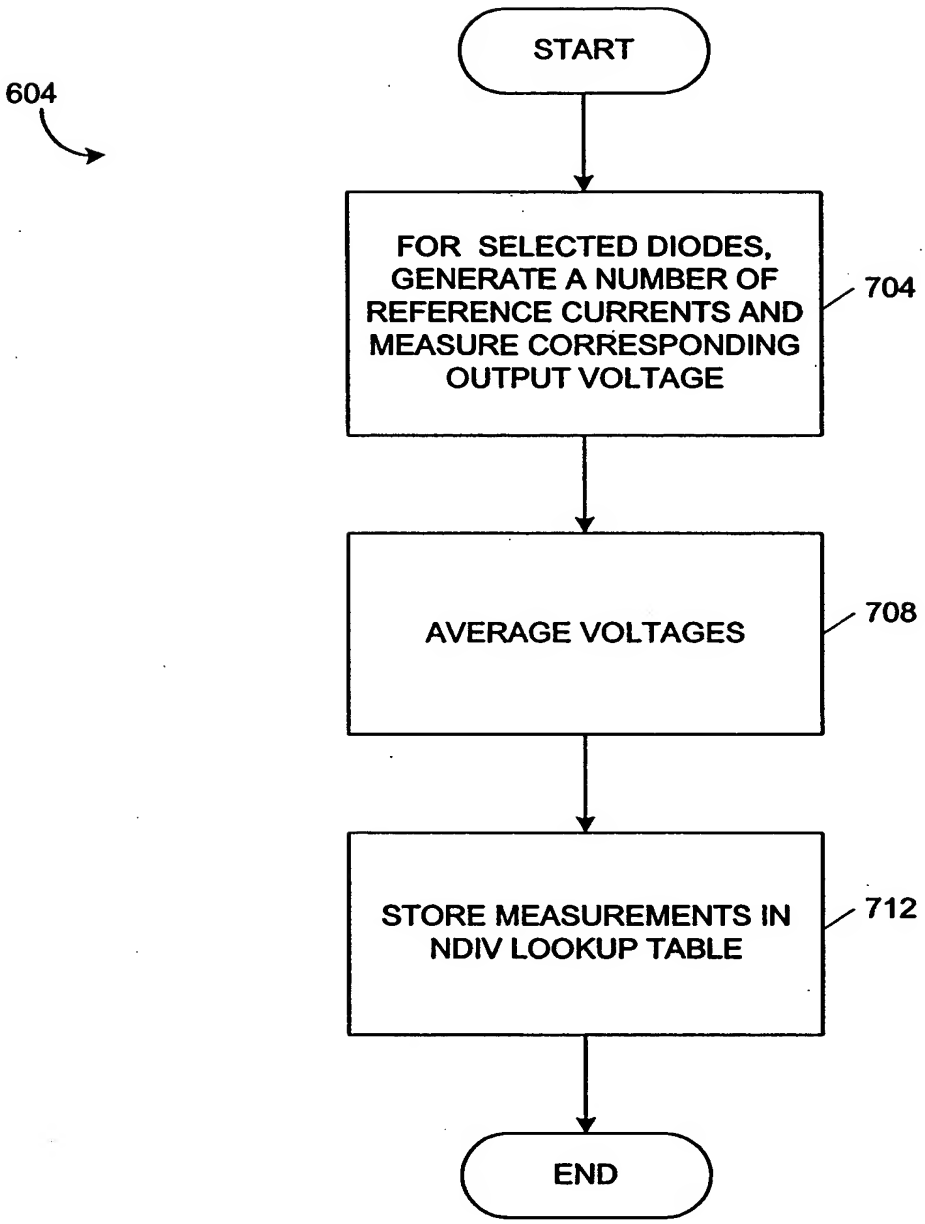

604
START
FOR SELECTED DIODES, GENERATE A NUMBER OF REFERENCE CURRENTS AND MEASURE CORRESPONDING OUTPUT VOLTAGE
704
AVERAGE VOLTAGES
708
STORE MEASUREMENTS IN NDIV LOOKUP TABLE
712
END

FIG. 7

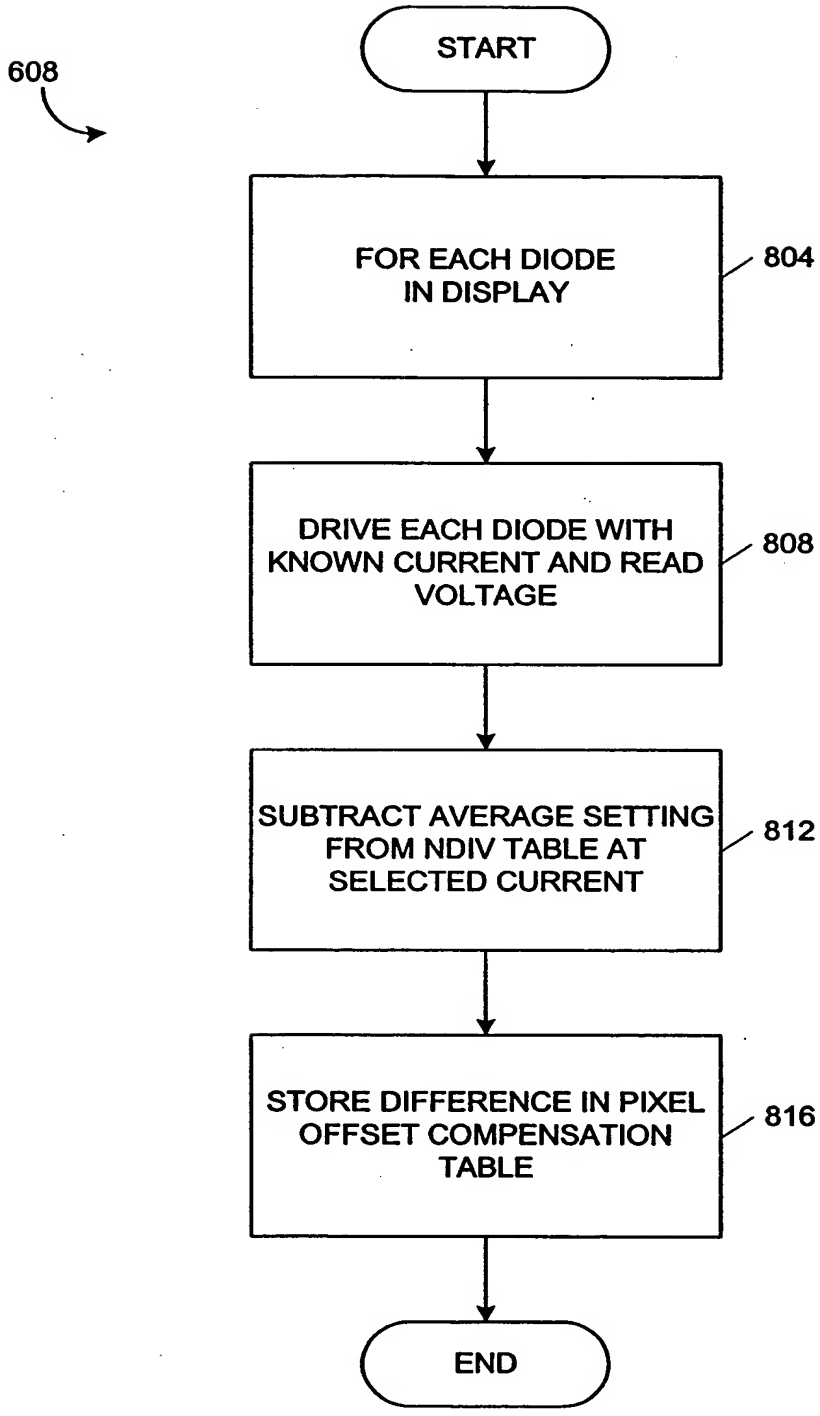

608
START
FOR EACH DIODE IN DISPLAY
804
DRIVE EACH DIODE WITH KNOWN CURRENT AND READ VOLTAGE
808
SUBTRACT AVERAGE SETTING FROM NDIV TABLE AT SELECTED CURRENT
812
STORE DIFFERENCE IN PIXEL OFFSET COMPENSATION TABLE
816
END

FIG. 8

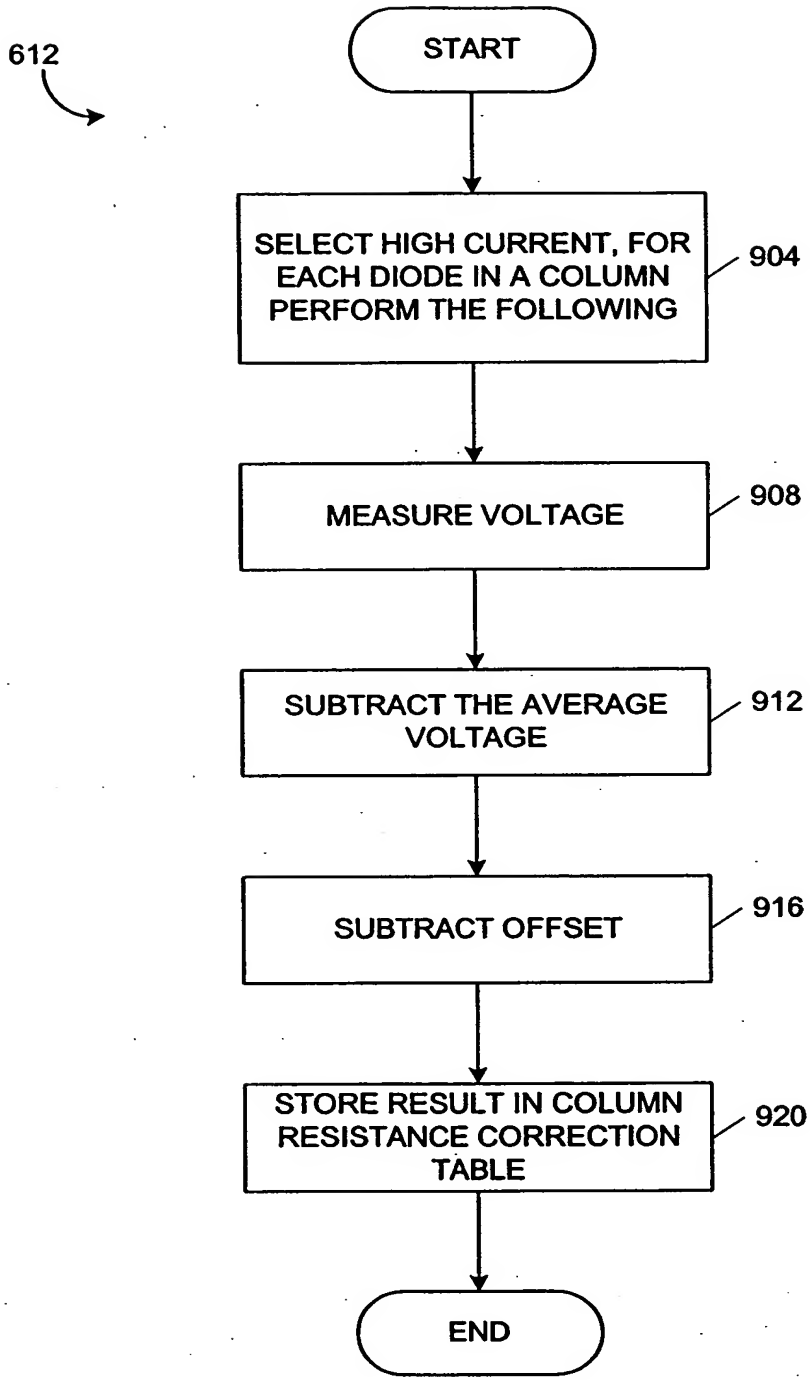

612
START
SELECT HIGH CURRENT, FOR EACH DIODE IN A COLUMN PERFORM THE FOLLOWING
904
MEASURE VOLTAGE
908
SUBTRACT THE AVERAGE VOLTAGE
912
SUBTRACT OFFSET
916
STORE RESULT IN COLUMN RESISTANCE CORRECTION TABLE
920
END

FIG. 9